

Computer department

Geel 2000 language school

AMAZING ICT

Name : ……………………………………………………………
Class : ……………………………………………………………

Lesson 1: - Explorer



Peg Keiner *Who is she??*

- Peg Keiner is from **Chicago** in the **UnitedStates.**

1. a **Global Goals Ambassador** for the **United Nations Association** Chicago Chapter
2. **a National Geographic Explorer.**
3. She is also the **Director of Innovation** at a school in Chicago

COVID-19 pandemic in 2020,

While she was walking around her neighborhood. She noticed therewas a lot of litter from **COVID PPE** (**personal protective equipment**)

What are the personal protective equipment?

- such **as facemasks** and **disposable gloves**

What does Ms. Keiner make to help spreading awareness of thedangers of litter?

1. Ms. Keiner took a photo of the litter and record where shefound it.
2. She used an app called the Debris Tracker,
3. She describes the kind of litter (paper, plastic, etc.).
4. She uploaded the location and the description of the itemsevery time she saw PPE litter.

Debris Tracker:

1. it's an app that you can downloaded for free
2. Recorded the location with GPS

How collecting data done?

Ms. Keiner wasn't collecting litter data alone. But of the help of her educators **on the impact of different types of litter** on the environment

She teaches them **to use the** Debris Tracker, and they **collectdata** on litter and **analyze them**.

Ms. Keiner used the hashtag **#trackingppe**: -

On Twitter and **Instagram**, and **piloted social media** campaigns to encourage followers in 60 countries to collect PPE debris and data

The data uploaded by Ms. Keiner, her colleagues, and herfollowers are in the form of:

1. GPS map locations
2. infographics showing the different kinds of debris.

The importance of all of this is:

The data was analyzed, and the results, were used byresearchers to request change.

Social responsibility is the basis on which the EgyptianMinistry of Environment started an initiative in 2019.

The "Go Green" initiative Goals:

1. is part of the **National Sustainable Development Strategy**,"Egypt 2030."
2. It covers 36 environmental issues
3. encourage a more responsible attitude toward plastic wasteand other debris.
4. spreads awareness of environmental issues and emphasizes each citizen's role in protecting the environment and naturalresource
5. The Debris Tracker application **collects data**. The user can view and gather the data on a **spreadsheet** that includes **the location**, **the material type**, **its date**, **its name** and then **display each type on the map as a blue dot**. The data can also be viewed as a **pie chart** or a **bar graph**. The data is stored on the Debris Tracker website and is available for anyone to download and analyze.



1 Choose the correct answer:

1. Peg Keiner is from ....
   a. New York b. Chicago c. China
2. Ms. Keiner is a Global Goals Ambassador for the ....
   a. United States b. United Nations c. United Emirates
3. Ms. Keiner is .... at a school in Chicago.
   a. the Director of Innovation
   b. an explorer c. an ambassador
4. Personal protective equipment (PPE), such as ....
   a. facemasks b. disposable gloves c. a & b
5. Ms. Keiner used an app called .... to collect data about PPE litter.
   a. the Debris Tracker b. Zoom c. Satellite
6. The Debris Tracker app records the location with ....
   a. VPN b. GPS c. IMS
7. Ms. Keiner piloted social media campaigns on .... to encourage followers to collect PPE
   a. Twitter b. Instagram c. a & b
8. The data uploaded by Ms. Keiner, her colleagues, and her followers is in the form of .... that showing the different kinds of debris.
   a. GPS map locations b. infographics c. a & b
9. The Egyptian Ministry of Environment started "Go Green" initiative in 2019, on the basis of ....
   a. social studies b. social responsibility c. a & b
10. Egypt's "Go Green" initiative spreads awareness of .... issues .
    a. technological b. health c. environmental
11. Ms. Keiner's students collect data on litter and .... them.
    a. share b. analyze c. delete

Lesson2: - Digital citizenship and social responsibility



social responsibility: -

☞ Peg Keiner uses social media to **spread information** abouthow to safely get rid of the problem of PPE in the environment.

☞ **You can use your social responsibilities**

1. to help others via social media,
2. to contribute in social activities that help solve social issues (like improving health care, fighting pollution andthe factors affecting climate change)
3. Express your opinions in a positive way.

(How to communicate with people in person, and howto respect their opinions.)

4. you may have information sources like videos or articles,about a cause.

(Be sure that they are **accurate** and **easy to understand**.Don't spread false information

5. Make sure the information you share are clear.

(Being socially responsible includes being mindful of thewebsites

you use. (If a site is spreading false or harmful information, stop visiting that site)

Corporate social responsibility Companies (CSR).

(CSR) using the internet to help others, by addressing environmental concerns or supporting important causes.

Exercises

1 Choose the correct answer:

1. The ability to engage with others online is one of my .... as a digital citizen.
   a. responsibilities b. rights c. privacy
2. One of the responsibilities you have as a digital citizen is to ....
   a. ensure safe sharing online.
   b. respect various sources c. a&b
3. You can access information online as this is one of your .... as a digital citizen.
   a. responsibilities b. rights c. privacy
4. You should exhibit .... behavior in interactions with others online.
   a. positive b. negative c. a&b
5. Respecting others' privacy is one of your .... as a digital citizen.
   a. rights b. responsibilities c. piracy
6. One of the ways to respect online sources is .... them.
   a. to ignore b. by crediting c. to download
7. Peg Keiner uses .... to spread information about how to safely get rid of the problem of PPE.
   a. social media b. WhatsApp c. the EKB
8. You can use the internet via .... to help others and contribute in social activities.
   a. YouTube b. social media c. the EKB
9. There are many information sources online, such as ....
   a. videos b. articles c. a&b
10. Make sure the information you share and its purpose are ....
    a. clear b. unreliable c. personal
11. If a site is spreading false or harmful information, you should ....
    a. proceed visiting that site
    b. stop visiting that site. c. stop visiting the internet

Lesson3: - Online communication

communicating online with a teacher

1. be polite and respectful,
2. use titles, as, Mr., Mrs., or Dr.
3. Avoid making jokes.

haven't met the person you're writing to yet,

1. be sure to introduce yourself.
2. Be clear about what your message is about.
3. State your reason for sending the message up front.

classmate you don't know well,

1. be sure to use their full first name.
2. Don't abbreviate or use nicknames.

a friend or family member

1. be more casual in tone
2. be respectful.Remember: -

when you are: -

on a video call, your emotions will be visible to everyone,on written messages feelings are more difficult to convey

Think about this as you send your communication

Nonverbal communication is lost and meaning can be misinterpreted negatively because it does not explain tone of voice, gestures, posture, and eye contact, So…

How to communicate online positively?

1. Use positive words: Set a positive tone with words such as canand will. Avoid negative words such as can't, won't

2. Be conversational: Add warmth with words, and your sentence structure.

3. Use emojis: Emojis add tone and emotion. it's usually safe touse one or two positive emojis.

Begin and end with positive phrases: Use friendly or encouragingphrases such as I like your ideas for our project



1 Choose the correct answer:

1. If you're communicating with your teacher, you should use ....
   a. jokes   b. titles   c. his first name
2. If you haven't met the person you're writing to, state your reason for sending the message ....
   a. up front   b. back-end   c. downward
3. When you're communicating with a person of authority, you should ....
   a. be respectful   b. avoid making jokes   c. a&b
4. If you're communicating with a peer you don't know well, be sure to use their ....
   a. first name   b. nick names   c. abbreviations
5. If you are writing to a person that you have never met, you should .... yourself first.
   a. introduce   b. produce   c. engage
6. It's ok to be casual in tone, if you're communicating with ....
   a. a person in authority
   b. a family member
   c. an unknown person
7. When you are making a video chat with your friend, your emotions will be ....
   a. visible
   b. invisible
   c. no correct answer

lesson 4: - Information websites



The Alexandria Digital Library, and **the Egyptian Knowledge Bank** are examples of **reliable** online libraries They offer: -

- collection of online educational resources, including **articles**, **dictionaries**, **encyclopedias** and **books,** and **video**, **audio,** and **interactive files**
- files can be downloaded to your device
- content suitable for all ages
- safe and accurate sources
- free access for all Egyptian citizens
- material that is subject to copyright

The features of Helpful websites: -

1. **Search engines** inside the website provide results based on what youtype in the field.

The EKB and ADL content have specialized search engines.

2. **Menus** also help you to find information.

•help to avoid scrolling and spending too much time looking for generalinformation.

•They include clear titles and content information.

3. **Icons** can be clicked to reach other sections or webpages.

4. **Contact and About fields** are easy to find so visitors can contact or learn more about the people involved in a website.

Website Creation

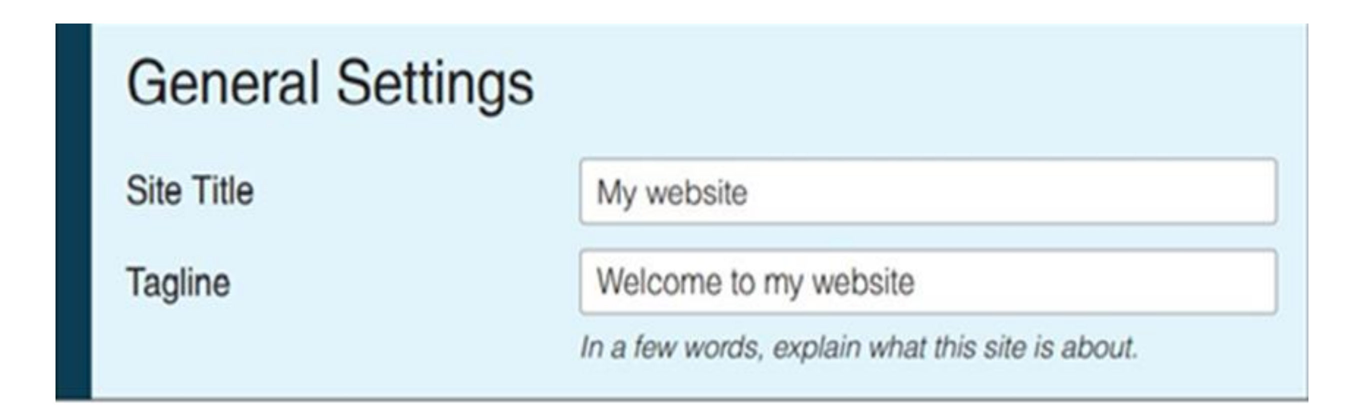
Software programs like **WordPress** are used to **create websites**.

☞When you start creating your website, you can choose a **blanktemplate** or choose one of the **software's pre-loaded templates**.

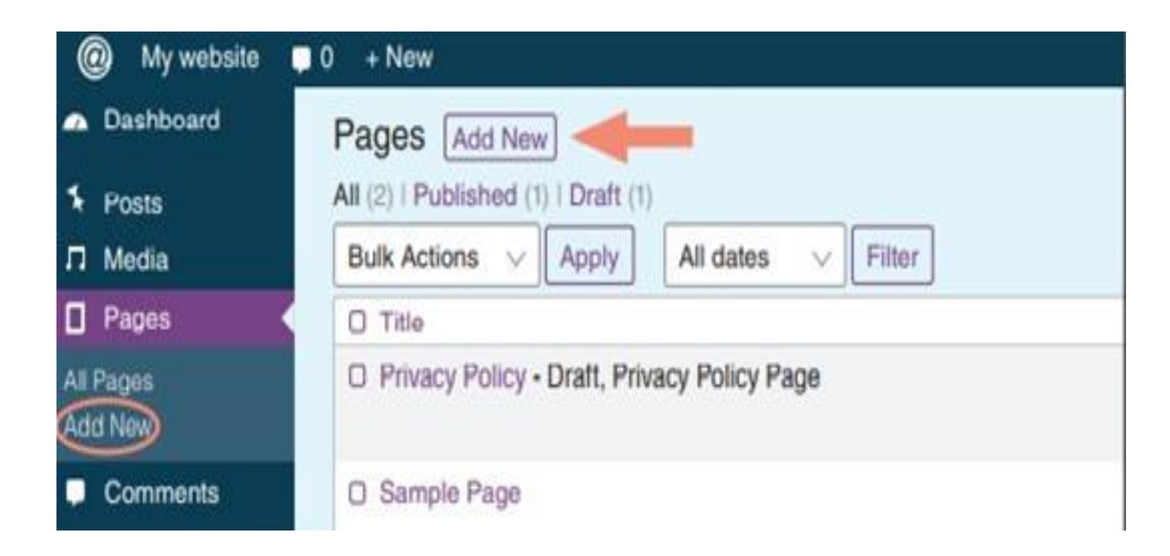
Once you choose a template to work with, you will be able to access freedesign tools to create your website.

Note: When creating a website, be sure to consider the photos and videos,and font size/type.

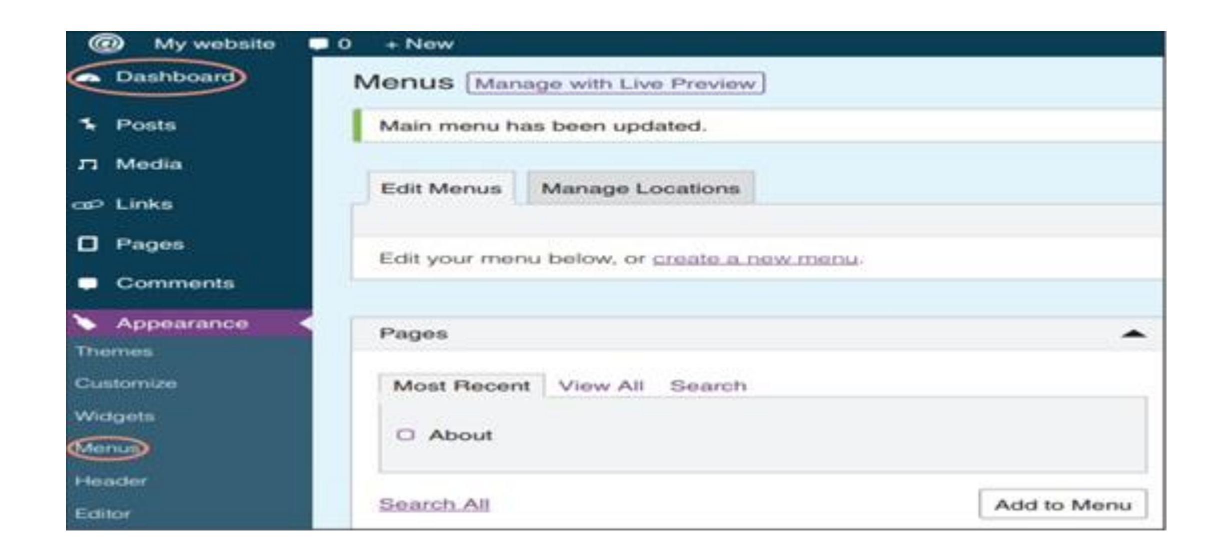
1. Website's title and a tagline (While creating a website)



2.Design your homepage



3.Add menus for easy navigating.





1 Choose the correct answer:

1. .... is an example of reliable online libraries
   a. Alexandria Digital Library
   b. Egyptian Knowledge Bank
   c. a & b
2. .... provides one of the largest collection of online educational resources all over the world.
   a. The EKB   b. Wikipedia   c. ADL
3. The EKB and ADL websites have specialized ....
   a. personal information
   b. search engine   c. a &b
4. .... help(s) you to save time and find information easily.
   a. Icons   b. Menus   c. URL
5. You can click on .... to reach other sections or webpages.
   a. icons   b. menus   c. About link
6. Egyptian Knowledge Bank has content suitable for ....
   a. children only   b. teachers only   c. all ages
7. .... includes short pieces of information about the website.
   a. Icons   b. Menus   c. About link
8. .... allow(s) visitors to contact or learn more about the people involved in a website.
   a. About link   b. Contact link   c. a&b
9. .... is a software programs that is used to create websites.
   a. WordPress   b. Excel   c. PowerPoint
10. When you start creating your website, you can choose ....
    a. a blank template   b. a pre-loaded template   c. a&b

Lesson 5: -Commercial and non-commercial internetservices

Websites are either **Commercial** or **Non-Commercial.**

1. **Commercial websites**

a) The purpose: - is to sell products or services.

b) An example: - Amazon.

2. **Non-Commercial websites**

The purpose: - is to provide information or raise awareness on an issue.

an example: - The Egyptian Knowledge Bank.

❖ Be wary of fake reviews

❖ customer reviews: - often included which can be helpful to **both the business** and **the customer.**

Reviews help customers decide if they want to buy a particular product or not

***Reasons of fake reviews**

1. Beware of comments and ratings as they are usually written by the companyitself or their relatives in order to promote the company's products.

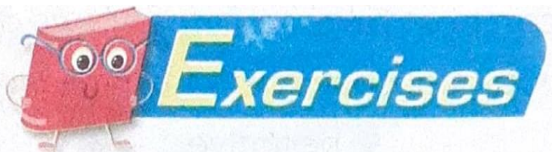
2. a rival business will post negative reviews under a false name on theircompetitors' sites to prevent customers from making a purchase.

❖ Some reviews may not be **fake**, but they may be **misleading**. A review that's **overly** positive or negative **shouldn't be trusted.**

❖ Getting information about a product.

1. Via reviews
2. via advertisements.

Some sites know the things that you repeated or watch it in frequent, so by the algorithm, Sites begin to present you advertisements to a similar product.



1 Choose the correct answer:

1. .... is an example of a commercial website.
   a. EKB b. Amazon c. WordPress
2. Commercial websites often include ...., which can be helpful to both the business and the customer.
   a. customer reviews b. customer services
   c. none of the previous
3. The websites can be divided into ....
   a. commercial websites b. non-commercial websites
   c. both of the previous
4. Customer reviews help customers decide if they want to .... a particular product or not.
   a. sell b. buy c. check
5. The purpose of non-commercial websites is to ....
   a. sell products b. sell services
   c. provide information
6. Reviews help .... decide if they want to buy a particular product or not.
   a. customers b. businesses
   c. both of the previous
7. The purpose of commercial websites is to ....
   a. provide information b. raise awareness c. sell products
8. .... is an example of non-commercial websites.
   a. EKB b. Amazon c. Jumia
9. One of the examples of fake reviews is .... reviews that are written by a business to make their product seem more appealing.
   a. positive b. negative
   c. both of the previous

Lesson 6: - Using ICT for content creation

Microsoft Edge is the web browser that comes with Microsoft Windows.

Goal: - help you **browse, search, stream and** more.

The Collections feature: - organizes research in one place and on multipledevices.

- You can start a collection for each new project.
- each collection you can **add entire web pages.**
- you can also add individual **videos, images** (including **charts** and **graphs**),**text**, **links** and **notes.**
- You can also **export** each collection to other apps such as **Excel** and **Word.**

To start a collection

•Select **Collections** on the **toolbar.**

•Select **Start** a New Collection.

•Type the title of your collection in **the box.**

•Add content by selecting **Add current page**.

•**Drag an image** into the collection.

•Select text or links and drag them into a collection.

Writing help- Microsoft Editor

Use it to check for **spelling** and **grammar**.

The editor will **highlight** problems such as **capitalization errors**, **sentencefragments** and **missing or incorrect words** and **punctuation** then make asuggestion to correct each error.

You decide whether to accept or ignore each suggestion

•Select the **Editor icon** in Word's **toolbar**, or in the browser, to reviewpossible grammar and spelling errors to improve clarity, formality, and conciseness



1 Choose the correct answer:

1. .... is a web browser that comes with Microsoft Windows.
   a. Microsoft Edge b. Microsoft Word c. Google Chrome
2. The .... feature in Microsoft Edge organizes research in one place.
   a. Selections b. Collections c. toolbar
3. The browser can help you ....
   a. browse b. search c. both of the previous
4. Microsoft Edge is a/an .... that comes with Microsoft Windows.
   a. search engine b. web browser c. antivirus
5. Using the Collections feature in Microsoft Edge, you can add ....
   a. videos b. images c. a & b
6. You can .... each collection to other apps such as Microsoft Word.
   a. import b. export c. download
7. To start a collection in Microsoft Edge, you can select ....
   a. Start new collection b. New webpage c. New file
8. You can use .... to check for spelling and grammar errors.
   a. Microsoft Editor b. Microsoft Excel c. Microsoft Windows
9. You can add .... using the Collections feature in Microsoft Edge.
   a. notes b. links c. a & b
10. The Editor highlights problems, such as ....
    a. capitalization errors b. sentence fragments c. a & b
11. Select the .... in Word's toolbar, or in the browser, to review possible grammar and spelling errors.
    a. Editor icon b. watermark icon c. review menu

Lesson 7: - How to choose online sources

SOURCES FOR RESEARCH

1. **ONLINE LIBRARIES**

- Online libraries sometimes include **dictionaries**, **thesauruses**, and encyclopedias.
- Not all sources posted there are verified or **accurate.**
- Online libraries such as **the Alexandria Library** and **the EKB** have **secure** information.

2. **ONLINE MAPS**

provide us with **clear** and **accurate directions** to places such as **Google Maps**.
Google Maps it considered accurate and are regularly updated

3. **ONLINE MUSEUMS** allow you to view museums digitally, also includeinformation about each museum.

4. **SPECIALIZED SEARCH ENGINES**

such as **Google** or **Bing** are very useful.
use **appropriate keywords** to find your results

- Be careful, those engines may lead you to **unreliable pages** or **unsafe pages**

5. **A WEBSITE'S META INFORMATION**

- Websites include meta information, such as **keywords**, **information about the site**, and what **it contains.**
- When you search and get results, the information that is below each link is the meta information for the site. This allows you to read more about the site before clicking on the link.
- the bottom of websites, include information such as **a copyright notice**, **logo**, **contact information**, and **social media icons**.



1 Choose the correct answer:

1. Online libraries may include ....
   a. dictionaries b. encyclopedias c. all the previous
2. A Creative Commons search is a resource to find .... materials.
   a. copyright-free b. protected c. digital
3. Online libraries, such as .... have secure and verified information.
   a. Wikipedia b. Alexandria Library
   c. social media
4. .... provide clear and accurate directions to the required places.
   a. Online libraries b. Online museums c. Online maps
5. .... allow(s) you to read more about the site before clicking on the link.
   a. Online libraries b. Meta information
   c. Egyptian Knowledge Bank
6. .... are reference sites that allow you to view museums digitally.
   a. Online libraries b. Online museums c. Online maps
7. .... are helpful for searching different media, such as images or videos online.
   a. Online libraries b. Online museums c. Online maps
8. Copyright notice, logo, and contact information are placed at the .... of the website.
   a. top b. middle c. bottom
9. We can use specialized search engines, such as ....
   a. Bing b. Google Chrome c. a & b
10. The meta information of the sites includes ....
    a. keywords b. information about the site
    c. a & b
11. The meta information for the sites are placed .... each link.
    a. above b. below c. opposite to

• ***Lesson 8: - choosing between synchronous and asynchronous communication***

	Synchronous	***Asynchronous***
1	real-time communication between people in the same time	does not occur in real time and does not occur in real time
2	Ex as video chats, live television shows, and instant chat rooms	email, voice and text messages and recorded videos
3	useful when you are writing about a lighthearted	useful in serious matters with someone you don't know well or with someone in authority

• ***Rules should be respected while communication***

- ***Be polite***. Beware of your tone even if you're upset.don't bother anyone.
- ***Be patient.*** Wait for responding to your massages even if it's your friend. wait before sending another massage
- ***Be helpful***. If anyone need help with online communication, share what you know.
- ***Be clear***. be sure your message is clear. Try not to make when communicating online.

• Abbreviation: -

☞ ***COVID PPE (personal protective equipment)***

☞ ***Corporate social responsibility Companies (CSR).***

☞ ***EKB: -the Egyptian Knowledge Bank***

☞ ***ADL: - Alexandria Digital library***



1 Choose the correct answer:

1. .... communication needs instant response.
   a. Synchronous b. Asynchronous c. Both of them
2. .... is an example of synchronous communication.
   a. Email b. Live TV show c. Recorded video
3. .... communication is/are type(s) of digital communication.
   a. Synchronous b. Asynchronous c. Both of them
4. .... communication doesn't (don't) occur in real time and doesn't (don't) require an instant response.
   a. Synchronous b. Asynchronous c. Both of them
5. Instant chat rooms are examples of .... communication.
   a. synchronous b. asynchronous c. both of them
6. Email, voice messages and text messages are examples of .... communication.
   a. synchronous b. asynchronous c. both of them
7. .... communication is/are useful when you are writing about serious or complicated matters with someone you don't know well.
   a. Synchronous b. Asynchronous c. Both of them
8. .... communication is/are useful when you are writing about everyday matter to family and you need an immediate or quick response.
   a. Synchronous b. Asynchronous c. Both of them
9. .... communication is/are useful when you are writing about an issue with someone in authority and you don't need an answer right away.
   a. Synchronous b. Asynchronous c. Both of them
10. .... is/are real-time communication between people.
    a. Synchronous b. Asynchronous c. Both of them

Theme 2

Lesson 1: - Explorer in action



(Dr. Diego Ponce de Leon)

☞ National Geographic Explorer

☞Dr. Diego holds a **PhD** from the **Energy and Resources Group**, University of **California** Berkeley.

☞He uses remote sensors to improve energy efficiency

** He develops using technology to build

renewable energy-related data

infrastructure and systems. These data systems allow him: -

1. **to collect data on power grids** to improve the power system2.

reduce energy waste.

Recently, the world Made a lot of progress in Switching from **power generation** to using both **wind** and **solar** energy insteadHow energy is generated?

power generated by **fossil fuels** derived from **coal**, **natural gas**, and **oil**.

Energy efficiency is important So, how Dr Leon work helps devices workefficiently?

1. Connecting all the refrigerators and air conditioners together by a thermostat
2. programming a computer to monitor and control them.
3. He used sensors to monitor the appliances
4. he used his knowledge of software to program the air conditioners and refrigerators in a new, energy-efficient way
5. He used the sensors to monitor how much energy the refrigerators and air conditioners used throughout the day
6. He was able to balance the power grid by moving and storing the electricityfrom one place to another so that the amounts are more equal

Thermostat is: - a switch that measures temperature in air conditioners and refrigerators

Sensors are: - a device which communicate information back to a computer Using technology to collect data is crucial in planning for the future

Notice: - a Raspberry Pi 2B is a ***small***, ***inexpensive*** computerAlso, it is a simple computer that you can program it to: -

1. turn lights on and off
2. read sensors
3. record data.

Also, you can plug in a ***keyboard***, ***monitor***, and ***mouse*** to this very smallcomputer to begin coding it.



1 Choose the correct answer:

1. Dr. Diego Ponce de Leon holds a PhD from the University of ....
   a. Chicago b. California c. New York
2. .... is one of the renewable energy sources.
   a. Natural gas b. Wind c. Coal
3. Dr. Diego Ponce de Leon develops the use of technology to build data systems related to ....
   a. renewable energy b. fossil fuels c. debris
4. Fossil fuels are found in nature in the form of ....
   a. coal b. natural gas and oil c. a&b
5. Recently, ... are being used instead of power generated from fossil fuels.
   a. wind and solar power
   b. natural gas and oil c. a&b
6. Dr. Diego Ponce de Leon's work helps devices work efficiently by connecting the refrigerators and air conditioners together with .... and programming a computer to control them.
   a. Wi-Fi b. thermostat c. bluetooth
7. Dr. Ponce de Leon used the .... to monitor how much energy do the refrigerators and air conditioners used throughout the day.
   a. sensors b. thermostat c. mobile
8. Thermostat is used in refrigerators to measure the ....
   a. temperature b. energy c. humidity
9. Dr. Diego Ponce de Leon used .... to monitor the appliances
   a. sensors b. thermostat c. Wi-Fi

Lesson2: - How digital devices work

Tips when deciding to install software

1. INSTALLING SOFTWARE: -

like **Microsoft Office** versions and **Google Chrome**, they are downloadedfrom the internet

☞ Windows PC:

A. Find the program online.
B. Click the download button.
C. Click on the file, located in Downloads.
D. A box will pop up.
E. Follow the instructions to finish the installation process.

☞ Android device:

A. Tap on the Apps icon.
B. Go to the **App store (Google Play).**
C. Find the app you're looking for and click install

2. **UPDATING SOFTWARE**: -

Software programs need to be updated to run efficiently and some updated automatically.

☞ **Windows PC:** Some major updates require a restart. Windows will promptyou when this is the case.

To manage updates

Start button -> Settings -> Update and Security -> Windows update.

☞ **Android device:**

System -> System Update.

there updates that still need to be installed.

Tap on the icon and follow the instructions to install the necessary updates.

3. Troubleshoot screen freezes

☞ **Windows PC**: Press and hold the **"Ctrl," + "Alt" + "Del"** buttons and usethe **Task manager** to shut down any program that **"not responding."**

If that doesn't work, turn your device off by **pressing and holding down** the **power** button. Then wait before restarting your device.

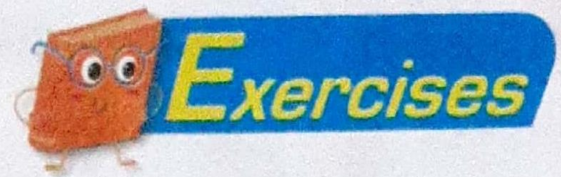
☞ **Android device**: Hold **down** the **power button** for **30** seconds and **restart.**

4. Binary numbers system |

binary numbers is **a language** of the computer.

Computers understand data (numbers) through a binary electrical signal (**1**means **on**, **0** means **off**)

The binary system uses the two values **1** and **0** to express the **binary numbers system.**



1 Choose the correct answer:

1. To solve the problem of screen freezes, you can use the .... buttons.
   a. Alt, Tab, and Del b. Alt, Ctrl, and Del c. Alt, Ctrl, and Tab
2. If you don't use official stores, only download software from .... sources.
   a. reliable b. unreliable c. harmful
3. If you downloaded a software program, you can find the program in .... folder.
   a. Installed b. Favourites c. Downloads
4. To turn your device off , press and hold down the .... button.
   a. power b. Esc c. enter
5. Computers use .... numbers system to store data more efficiently.
   a. binary b. decimal c. octal
6. Computers understand .... signals
   a. optical b. electrical C. a&b
7. The binary system uses the values .... to express the binary numbers system.
   a. 0 b. 1 c. a&b
8. In computer binary system, number (1) means ....
   a. on b. off c. pass

Lesson3: - An introduction to a binary number

- binary system represents information by **1** and **0** – **yes** and **no** – **on** and **off**
- Used to **send**, **receive** and **store** information on digital electronicdevices such as computers, phones and calculators.
- Humans use the **decimal system** to communicate using numbers.Which has **ten** unique numerals **(0-9)** as it called the **base ten system**.

We use these ten numbers to make all the possible numbers from them Counting from the **right**, each place represents a value ten times as bigas the previous one.

- **Binary** has just **two** unique numerals **(1 and 0)** and is thereforecalled **a base two system**

Just like the decimal system, when binary runs out of unique digits, it adds a digit on the left. Counting from the **right**, each place representsa value two times as big as the previous one, and so is a quantity of 1s,2s, 4s, 8s, 16s, etc

Decimal	Binary					
		....	....	....	..	.
		x16	x8	x4	x2	x1
1	1	0	0	0	0	1
2	10	0	0	0	1	0
3	11	0	0	0	1	1
4	100	0	0	1	0	0
5	101	0	0	1	0	1
6	110	0	0	1	1	0
7	111	0	0	1	1	1
8	1000	0	1	0	0	0
9	1001	0	1	0	0	1

Examples: -

1 0 0 0 0 0 0 1
x x x x x x x x
128 64 32 16 8 4 2 1

128 + 1

129

0 0 1 0 0 1 0 1
x x x x x x x x
128 64 32 16 8 4 2 1

32 + 4 + 1

37



1 Choose the correct answer:

1. Computers are simple and efficient like a ....
   a. light switch b. light lamp c. TV

2. Computers only understand information represented by ....
   a. 1s b. 0s c. a&b

3. The binary numbers system is used to store, send, and receive date on ....
   a. computers b. calculators c. a&b

4. Humans use the .... system to communicate using numbers.
   a. binary b. decimal c. octal

5. The .... system is called the base two system.
   a. binary b. decimal c. octal

6. The .... system is called the base ten system.
   a. binary b. decimal c. octal

7. In the decimal system, we use .... number symbols to represent all possible numbers.
   a. one b. two c. ten

8. The binary system is used to send, receive, and .... information on digital electronic devices.
   a. process b. delete c. store

Lesson4: - Determining the needs for a digital project

Ponce de Leon understands the importance of planning. He usestechnology to collect data to plan for the future.

Let's look at some tools you may need for a group project.

Microsoft Word: is an efficient program write anything. You also can workin the same time, but with an internet connection, you can set up a Word document to be edited by numerous users, at different locations.

This can be done by setting up **online editing**.

Microsoft Paint: You can save the images you create and insert them intoyour document.

Email: Use email to send your work to Others. Write your ideas in a message or attach a document or image that you've created. Remember to tell them that you're sending an attachment, so they know that it's safe to open.

Assigning roles is Understanding the roles group members

- The strengths of members – their personal characteristics
- Things needed to complete the project: pictures, text, data, etc.
- The tools needed for completing each section of the project
- The format that will be used to deliver information.

Then discuss who might be best suited for each aspect of the project andassign roles



1 Choose the correct answer:

1. Dr. Ponce de Leon uses technology to collect data to .... for the future.
   a. plan b. manage teams c. save energy
2. Microsoft Word can be edited by numerous users in different locations, if there is an available ....
   a. keyboard b. printer
   c. internet connection
3. You can use .... to save the images you create and insert them into your document.
   a. Microsoft Word b. Paint c. email
4. You can use .... to send your work to your colleagues.
   a. Microsoft Word b. Paint c. email
5. One of the most important issues in achieving your research project is ....
   a. data b. texts & pictures c. a&b

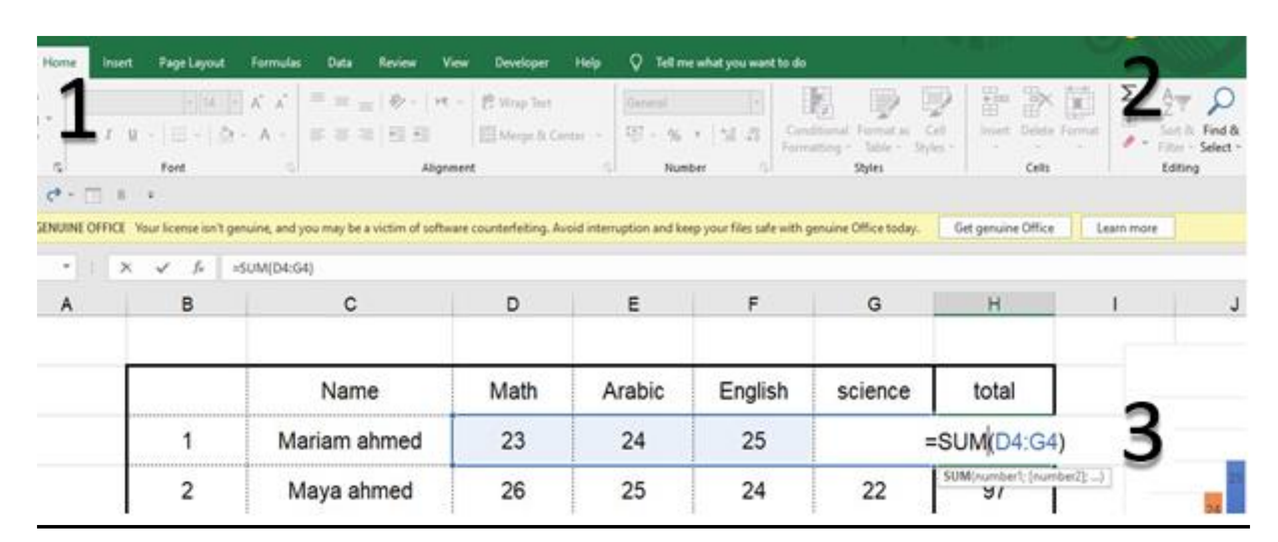
Lesson5: -Gathering data and presenting information

Gathering information using excel need remembering

To **add** the values of cells, use **"+."**
To **subtract**, use **"–"**
To **multiply**, use **"*"**
To **divide**, use **"/"**
Use **"="** in the cell that will **create the formula**,

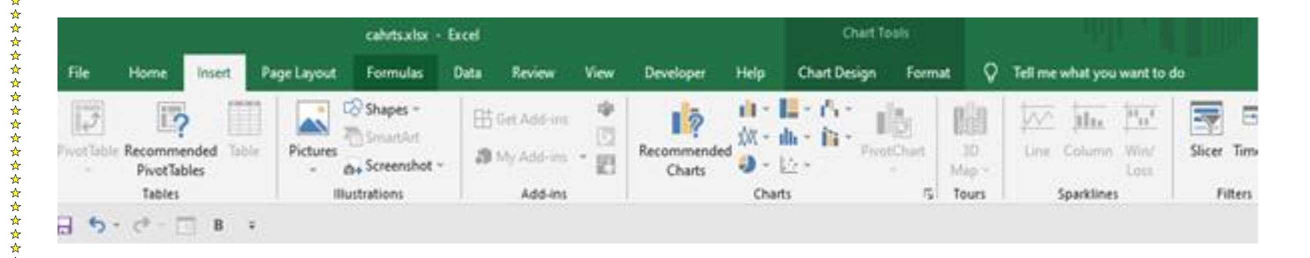
Add up numbers:

1. Select the cells you want to add together.
2. click: **Home Tab**
3. **AutoSum**
4. **Enter** from **key board**



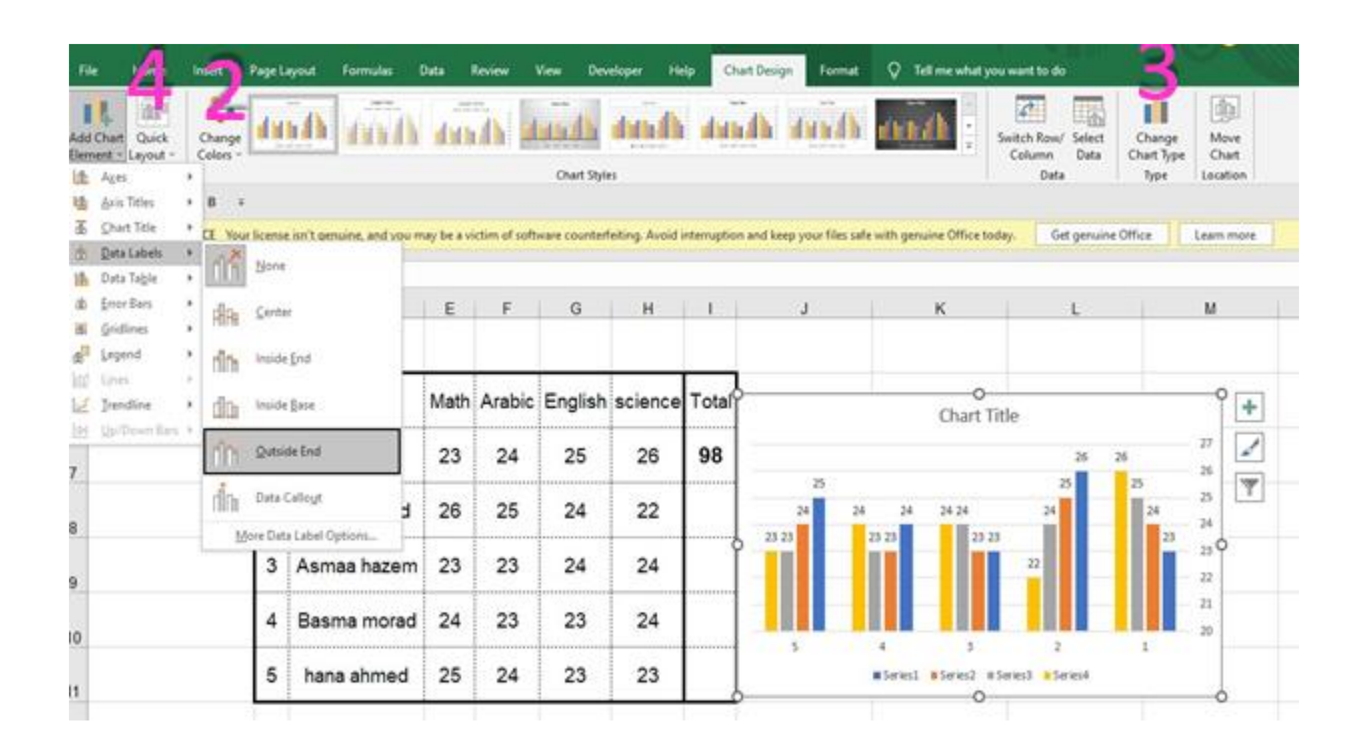
• To add infographics to Excel

1. Select the cells you want together.
2. click: **Insert Tab**
3. Choose from **charts** in the **Ribbon**



In Graph charts: -

1. **Add titles or labels** Toolbar >> Chart Design >>Add Chart Element
2. **Choose the color**: Toolbar >> Chart >> Design >> Format
3. **Choose the type:** Toolbar >> Chart Design >> Change chart type
4. **Choose the layout:** Toolbar >> Chart Design >> Quick Layout



Digital information-handling skills

You can **research**, **collect, classify** and **process** information usingdigital information handling skills.

- **Research:** When researching a topic, first define a research question,then use the internet or offline sources, to find information.
- **Collection:** You can use Word, Excel, pen and paper. Put data intospecific files and folders
- **Classification**: Excel graphs are one example of how you can classify andprovide a visual representation of data drawn in the form of a graph.
- **Processing:** Once you have researched, collected, and classifiedyour information, you want to process it to get to results.
- You could use **Word** for a **report**, **Excel** for a **spreadsheet**, or **PowerPoint** to create a **presentation**.

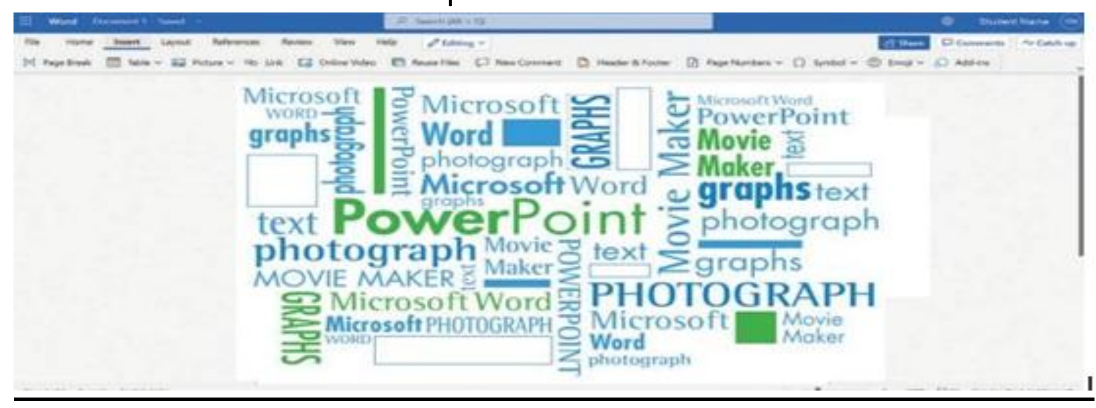


1 Choose the correct answer:

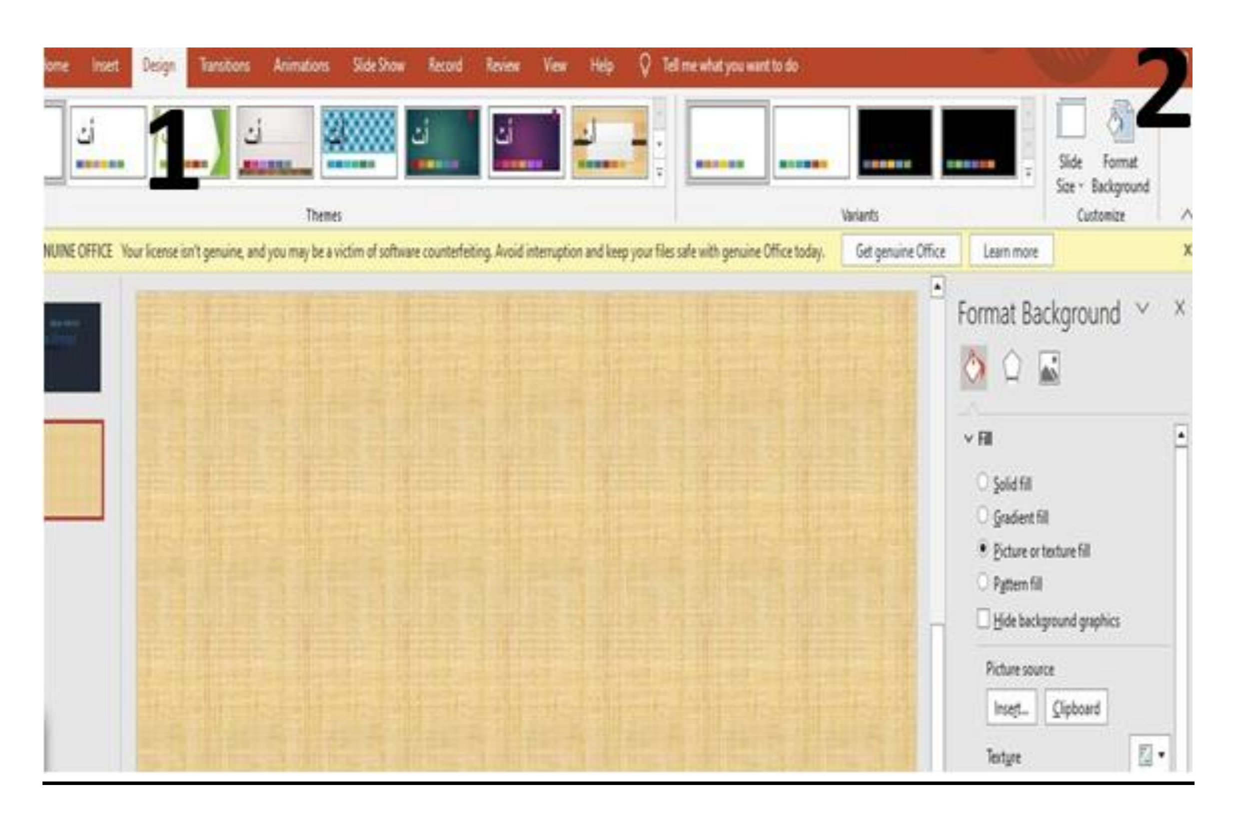
1. You can use .... to add the values of cells in Excel.
   a. +   b. -   c. =
2. To create a formula, you can write ....
   a. +   b. -   c. =
3. You can change the color of a graph/chart using .... from toolbar.
   a. Format   b. Quick Layout   c. Change Chart Type
4. .... is the program used to handle numeric data.
   a. Word   b. Excel   c. PowerPoint
5. To add titles or labels of a graph, you can choose .... from toolbar.
   a. Add Chart Element   b. Format   c. Change Chart Type
6. .... Program is used to make slideshow.
   a. MS Word   b. MS Excel   c. MS PowerPoint
7. To divide two values in Excel, you can use ....
   a. %   b. /   c. -
8. You can use .... to subtract the values of cells in Excel.
   a. +   b. -   c. =
9. .... Program is used to create tables and graphs.
   a. MS Word   b. MS Excel   c. MS PowerPoint
10. You can use .... to write a report.
   a. MS Word   b. MS Excel   c. MS PowerPoint

Lesson6: - Presenting information in an appealing way

Microsoft Word and **PowerPoint Text** can show important information in anexciting way. You can use one or two **colors** to **highlight** specific information, and put **important text** in **bold** for the main ideas. Use **the formatting tools** to dothis. You can also **insert WordArt** to make text have even more impact.



PowerPoint consider using **different background colors**.
Design >> format background >>Background colors



Photographs that reflect the topic of your message can catch the viewer'seye. You can also **insert shapes** or even your own drawings

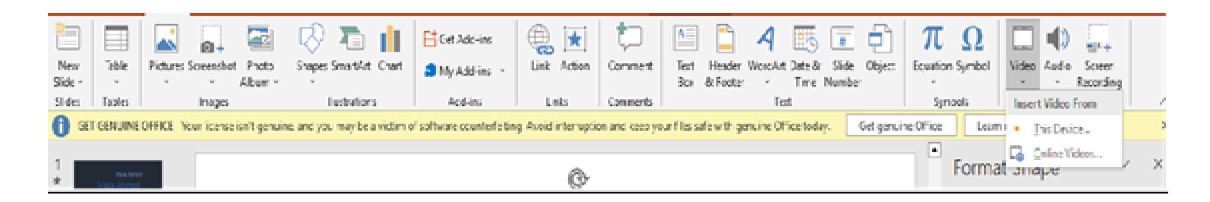
Insert >> Word art



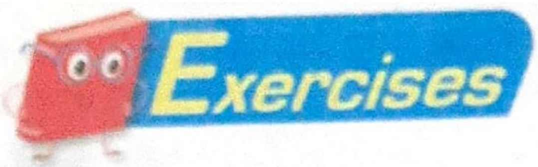
Graphs and charts are a good way to share data, especially numbers.

Add audio to enhance a text or image. Be sure there's **a clear** link to thevisual displayed data, and that it's **not too long or distracting**.

Using video clips in your presentation – ones you find online, or videos youhave made.



Movie Maker You can use Movie Maker to **make a film** from a selection ofstill images. The **intellectual property rights** of others should be **respected** when usingtheir photos, videos and audio files



1 Choose the correct answer:

1. You can use PowerPoint to present your ideas in ______ way.
   a. a normal b. a boring c. an appealing
2. You can add a video clip that you have created to your presentation or you can get one from ______ .
   a. the internet b. Excel c. Word
3. ______ is just like your favorite TV show or movie.
   a. EKB b. An effective presentation c. A table
4. ______ are considered a good way to share data, especially numbers.
   a. Graphs b. Charts c. Both of them
5. You can use ______ Program to make a film from a selection of images.
   a. Movie Maker b. Excel c. Word
6. You can use ______ to enhance a text or image in your presentation.
   a. audio b. video c. a & b
7. In ______, you can use different background colors.
   a. web browsers b. PowerPoint c. Excel
8. In PowerPoint, you can put important text in ______ font to make that text stand out.
   a. bold b. normal c. small
9. You can insert ______ to make text have even more impact in PowerPoint.
   a. audio b. video c. WordArt

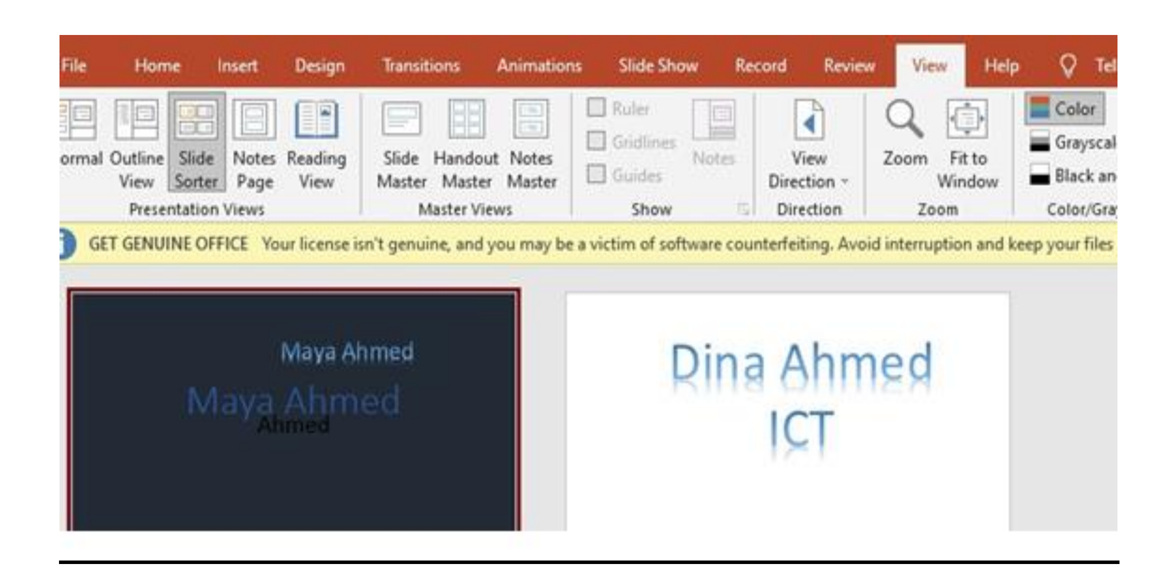
Lesson7: - Producing an effective presentation

A storyboard is a chart that shows a sequence of content that formsyour presentation

Storyboards

- allow you to plan your ideas and present the results on an effectivepresentation
- Make a draft with a description of each slide, then go to

>>View >> Slide Sorter to see an overview of your presentation



The 10-20-30 rule of Microsoft PowerPoint

A PowerPoint Presentation: -

shouldn't present too much informationShouldn't **take up too much time**.

Font size should be easy to read.

10: up to **ten slides** only

20: **no longer** than **20 minutes**

30: font **no smaller than 30**-point size

When your presentation is taking shape, look at the **'Design' tab**,which offers **alternatives** to the normal black-and-white design





1 Choose the correct answer:

1. ______ allow(s) you to plan your ideas and pre-visualize the results of a presentation.
   a. WordArt b. Storyboards
   c. Storytelling
2. The number of slides in a presentation should not be more than ______ slides.
   a. 10 b. 20 c. 30
3. Storyboards allow you to ______ .
   a. plan your ideas b. make videos
   c. collect data
4. Go to View, then ______ to see an overview of your presentation.
   a. Slide Master b. Slide Sorter
   c. Slide Page
5. The font used in a PowerPoint presentation should be no smaller than ______ -point size.
   a. 10 b. 20 c. 30
6. A PowerPoint presentation should not be longer than ______ minutes.
   a. 10 b. 20 c. 30
7. You can use the ______ in PowerPoint to offer alternatives to the normal black-and-white design of your presentation.
   a. Design tab b. View tab
   c. Insert tab

Lesson8: - Web design principles

HTML (Hypertext Markup Language): is the language that will be displayed on aweb browser. While you can create your story directly through a website-building program, you canalso use **Microsoft Word** to create your web page.

When your document is ready, choose '**Web layout'** in the **'View' tab**. You can also **save a file as a web page** by choosing **"file"** then "**save as**" then "**web page".**

The web page displayed in an online search engine

•Consider including a **larger image** that **reflects the main message** or providesinformation for your story. You may also include **smaller images**

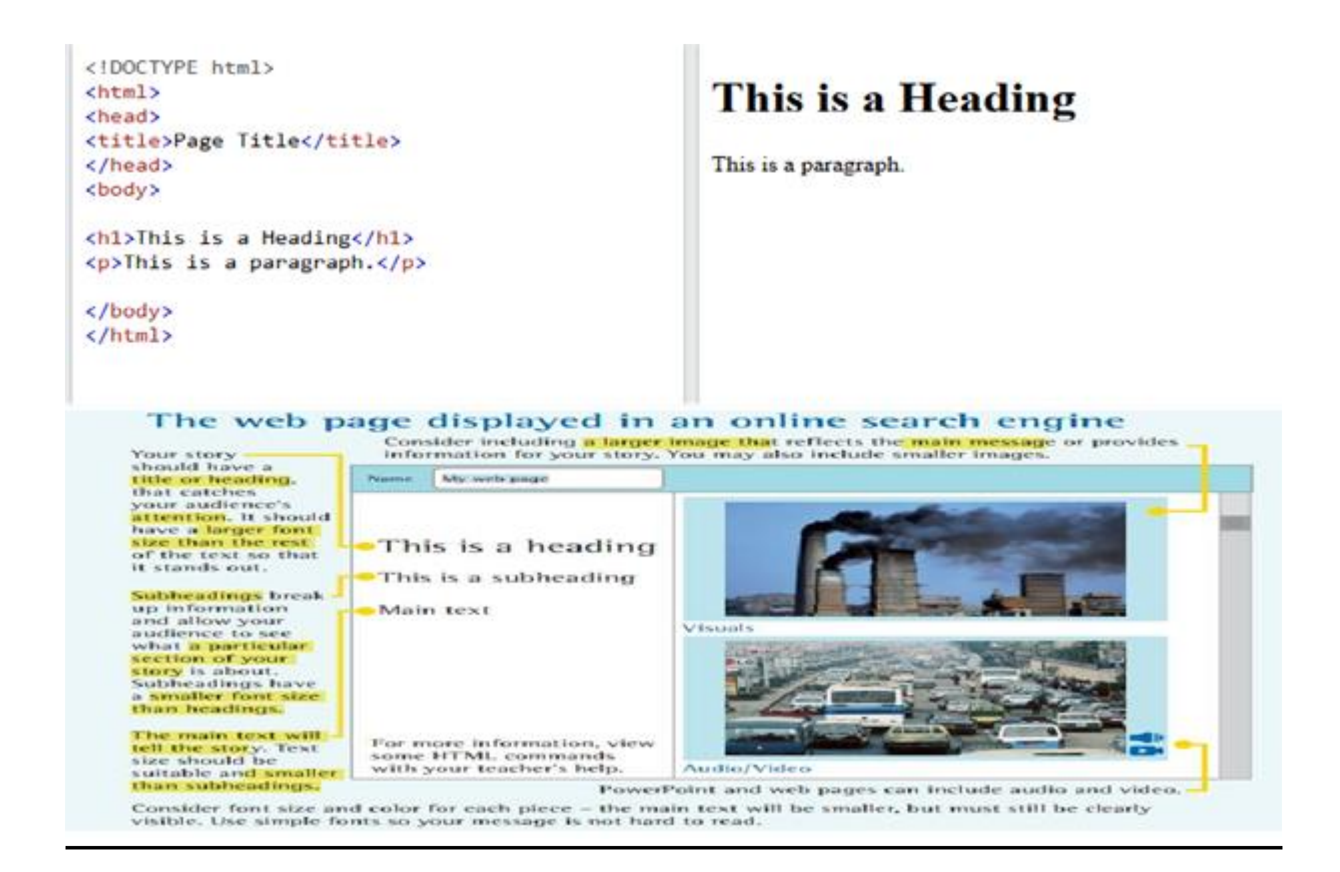
The heading: -

The story title catches your audience's attention. It should have **a larger font size** than the rest of the text

Subheadings: - allow your audience see a particular section of your story.Subheadings have a **smaller font size** than **headings.**

The main text: -

will tell the story. **Text size** should be **suitable** and **smaller than subheadings**.





1 Choose the correct answer:

1. You can use Microsoft Word to create ....
   a. reports b. web pages c. a & b
2. .... is the language that will be displayed on a web browser.
   a. PHP b. HTML c. HMLT
3. You can choose " .... " from File menu to save a file as a web page.
   a. Save As b. Save c. Share
4. You can create your web page using ....
   a. website-building program b. MS Word c. a & b
5. The web page heading should have a .... font size than the rest of the text.
   a. smaller b. larger c. normal
6. A web page's .... breaks up the information and allows your audience to see what a particular section of your story is about.
   a. heading b. subheading c. main text
7. Subheadings have a .... font size than headings.
   a. smaller b. larger c. normal
8. It is recommended to use simple fonts, so your message is .... to read.
   a. easy b. hard c. difficult
9. Consider including .... image that reflects the main message of your web page.
   a. smaller b. larger c. normal